REMARKS

Claims 9, 11-13, 18-19, 24 and 27-30 are pending in the application. By this Amendment, claims 9, 18, 19 and 24 are amended, claims 10 and 26 are canceled without prejudice or disclaimer and new claims 28-30 are added.

The Office Action rejects claims 9, 11-12, 19, 26 and 27 under 35 U.S.C. §103(a) over Embodiment 8 of Takayama in view of Embodiment 2 of Takayama and newly-cited U.S. Patent 6,768,478 to Wani et al. (hereafter Wani). The Office Action also rejects claim 13 under 35 U.S.C. §103(a) over Embodiment 8 of Takayama in view of Embodiment 2 of Takayama, Wani and U.S. Patent Publication 2002/0033675 to Kang. Still further, the Office Action rejects claim 10 under 35 U.S.C. §103(a) over Embodiment 8 of Takayama in view of Embodiment 2 of Takayama, Wani and U.S. Patent 6,747,614 to Takayama (hereafter Takayama 614). The Office Action also rejects claims 18 and 24 under 35 U.S.C. §103(a) over Embodiment 8 of Takayama in view of Embodiment 2 of Takayama, Wani and U.S. Patent Publication 2002/0063663 to Homma. The rejections are respectfully traversed with respect to the pending claims.

Independent claim 9 recites a plasma display panel (PDP) having scan electrodes and sustain electrodes to form a plurality of electrode pairs, and a first driving circuit configured to successively apply a first signal and a second signal to the scan electrodes before an address period of at least one sub-field. Independent claim 9 also recites that the first signal comprises an initialing pulse rising to a first maximum voltage value and a first decreasing pulse falling to a first minimum voltage value, and the second signal comprises an enhancing pulse rising to a second maximum voltage value that is less than the first maximum voltage value and a second

decreasing pulse falling to a second minimum voltage value that is greater than the first minimum voltage value. Independent claim 9 also recites that the second maximum voltage is equal to a sustain voltage applied to the scan electrodes or applied to the sustain electrodes in a sustain period of the at least one sub-field.

As described in the Background Art section of the present specification, a portion of discharge cells form positive wall charges (instead of negative wall charges) at a scan electrode Y during a set-down interval (shown in FIG. 5) due to a problem such as a panel characteristic, etc. If positive wall charges are formed at the scan electrode Y, then a brightness spot miss-fire or a miss-writing phenomenon may occur to cause a deterioration of picture quality in the PDP. See page 8, lines 11-25 of the present specification.

To overcome such a problem, a first signal and a second signal may be successively applied to a scan electrode. The first signal may rise to a voltage Vsetup+ Vs. See page 14, lines 1-9 of the present specification. In contrast, the second signal may rise to a voltage Vs that is lower than a voltage Vsetup+ Vs. See page 15, lines 1-17 of the present specification.

In a reset period, Vsetup+ Vs may be applied to a scan electrode and may reset all of discharge cells. Negative wall charges may be identically accumulated on a scan electrode. As described above, a portion of discharge cells may form positive wall charges. To erase the positive wall charges, the second signal rising to Vs may be applied after a first signal. The voltage Vs may provide a fine discharge to erase the positive wall charges. When a voltage higher than Vs is applied, then the voltage higher than Vs may provide a weak discharge such that more

positive wall charges are accumulated on the scan electrode rather than erasing positive wall charges.

The applied references do not teach or suggest all the features of independent claim 9. More specifically, the Office Action (on page 3) states that Takayama fails to disclose a second maximum voltage value less than the first maximum voltage value and a second minimum voltage value greater than the first minimum voltage value. The Office Action then cites Takayama's Tables 7-8. As shown below, Takayama's Table 7 discloses that V1y (allegedly corresponding to an initialing pulse) is higher than V2y (allegedly corresponding to an enhancing pulse). As can be determined from Tables 7 and 8, V2y is set to 240V and a sustain voltage Vs is set to 170V. Accordingly, Takayama discloses that V2y is set between V1y and Vs (i.e., the sustain voltage).

TABLE 7

V1a	V1x	V1y	V2a	V2x	V2y	V3a	V3x	V3y
0	300	340	0	-110	240	0	110	-90

(The unit is volts)

TABLE 8

Vx	Vy	Vsc	Va	Vs
0	-110	60	70	170

(The unit is volts)

As discussed above, when a voltage is higher than the sustain voltage Vs (in Takayama), a weak discharge may be provided such that more positive wall charges accumulate on a scan electrode rather than erasing positive wall charges.

For at least these reasons, Takayama's Embodiments 2 and 8 do not teach or suggest all the features of independent claim 9. More specifically, Takayama's Embodiment 2 and Takayama's Embodiment 8 do not teach or suggest that the second signal comprises an enhancing pulse rising to a second maximum voltage value that is less than the first maximum voltage value, and the second maximum voltage value is equal to a sustain voltage applied to the scan electrodes or applied to the sustain electrodes in a sustain period of the at least one sub-field, as recited in independent claim 9. The other applied references do not teach or suggest the missing features of independent claim 9. Thus, independent claim 9 defines patentable subject matter.

Independent claim 19 recites providing a first signal including an initialing pulse followed by a first decreasing pulse to the scan electrode during an initialization period of at least one sub-field, and providing successively a second signal including an enhancing pulse followed by a second decreasing pulse to the scan electrode after providing the first signal, wherein a lowest voltage of the first decreasing pulse is less than a lowest voltage of the second decreasing pulse. Independent claim 19 also recites providing a scan signal to the scan electrode during an address period of the at least one sub-field, the scan signal being provided after the second signal in the at least one sub-field, providing at least one sustain signal to at least one of the scan electrode or the sustain electrode during a sustain period of the at least one sub-field, wherein the initialing pulse of the first signal has a first peak voltage value, and the enhancing pulse of the second signal has a second peak voltage value, and wherein the first peak voltage value is greater than

the second peak voltage value, and wherein the second peak voltage value is equal to a voltage value of the sustain signal.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 19. More specifically, Takayama's Embodiment 2, Takayama's Embodiment 8 and the other applied references do not teach or suggest providing a first signal including an initialing pulse, providing successively a second signal including an enhancing pulse, wherein the initialing pulse of the first signal has a first peak voltage value, and the enhancing pulse of the second signal has a second peak voltage value, and wherein the first peak voltage value is greater than the second peak voltage value, the second peak voltage value is equal to a voltage value of the sustain signal, as recited in independent claim 19. Thus, independent claim 19 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 9 and 19 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

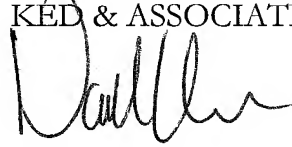
CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 9, 11-13, 18-19, 24 and 27-30 are earnestly solicited. If the Examiner believes that any additional changes would place

the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
KED & ASSOCIATES, LLP



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